

College Alg Even Answers

PS 16:

- 2] -14, -12, -10 4] 114.49 miles 6] $\frac{cp + bp}{2cm + bm}$
- 8] $d = \frac{ampy}{bxy - bmp}$ 10] $x^2 + 2x + 4 + \frac{7}{x-2}$ 12] 1] Given 2] PR = PR by Reflexive
3] $\triangle PQR \cong \triangle PSR$ by HL
- 14] $10\angle 233.13^\circ$, $10\angle -126.87^\circ$, $-10\angle 53.13^\circ$, $-10\angle -306.87^\circ$ 16] $-10.87\hat{i} + 40.57\hat{j}$
- 18] $-\frac{1}{10} \pm \frac{\sqrt{139}}{10}i$ 20] $x=3, y=2, z=1$ 22] $\frac{3}{5} - \frac{16}{5}i$ 24] $(1 - \sqrt{2})i$
- 26] $x=10, y=\frac{45}{8}, z=110$ 28] $V = 48\pi \text{ cm}^3 \approx 150.796$, $SA = 36\pi + 12\sqrt{13}\pi \text{ cm}^2 \approx 249.023$
- 30] C

PS 17:

- 2] $N_o = 8, N_s = 30$ 4] $\triangle ABC \approx \triangle XYZ$ by SAS similarity
- 6] $\triangle PQR \approx \triangle STU$ by AAA 8] 1] Given Info 2] $\angle ADE \cong \angle CDB$ - Vertical angles are congruent
3] $\angle C \cong \angle A$ - Alternate Interior Angles are Congruent
4] $\angle E \cong \angle B$ - If AA then AAA
5] $\triangle ADE \approx \triangle CDB$ by AAA
- 10] $\frac{x^2 + x}{x^2 + 4x + 4}$ 12] $r = \frac{-2ax^2}{bxt - ab^2}$ 14] 3 step proof using vertical angles and SAS
- 16] $12.17\angle 170.54^\circ$, $12.17\angle -189.46^\circ$, $-12.17\angle 350.54^\circ$, $-12.17\angle -9.46^\circ$ 18] $1, -\frac{3}{4}$
- 20] $x=1, y=1, z=-3$ 22] $\frac{7+i}{2}$ 24] $3x - 5x^{\frac{1}{2}}y^{\frac{3}{2}} - 2y^3$ 26] 2
- 28] $l = 10 \text{ cm}$, $h = 8 \text{ cm}$ 30] B

PS 18:

- 2] $N_N = 8, N_D = 9, N_Q = 3$ 4] $y = -\frac{2}{5}x + \frac{11}{5}$ 6] 106.8 oz
- 8] $\triangle PQR \approx \triangle STU$ by SSS 10] $\frac{dm + cm}{ad + ac + bd}$ 12] $k = \frac{2pm}{m^2c^2 - ap}$
- 14] 4 step proof using Alternate interior angles, reflexive prop, and AAS
- 16] $14.32\angle 347.91^\circ$, $14.32\angle -12.09^\circ$, $-14.32\angle 167.91^\circ$, $-14.32\angle -192.09^\circ$ 18] $-37.68\hat{i} - 26.38\hat{j}$
- 20] $-1, \frac{3}{2}$ 22] $-3 + 6i$ 24] $a^{\frac{8}{15}}b^{\frac{59}{15}}$ 26] 13
- 28] 24 cm. 30] B

PS 19:

2] $N_R = 5, N_B = 5, N_G = 10$ 4] $y = \frac{2}{5}x - 5$ 6] 56

8] $\left(\frac{-1+\sqrt{17}}{2}, \frac{1+\sqrt{17}}{2}\right), \left(\frac{-1-\sqrt{17}}{2}, \frac{1-\sqrt{17}}{2}\right)$ 10] $(1+\sqrt{5}, -1-\sqrt{5}), (-1-\sqrt{5}, -1+\sqrt{5})$

12] $(x^a + y^b)(x^a - y^b)$ 14] $(2x^2y + p)(4x^4y^2 - 2x^2yp + p^2)$ 16] $\frac{3a^2cd + 2bc^2d}{a^2b^2d - ab^3c}$

18] $\frac{-159 + 56\sqrt{3}}{407}$ 20] $9a^{\frac{2x}{3}} - b^y$ 22] $x^3 + 2x^2 + 4x + 6 + \frac{13}{x-2}$

24] Proof using Reflexive and HL 26] 40 28] a) $26,244\pi m^3$ b) 3 cm 30] C

PS 20:

2] $y = \frac{3}{5}x + \frac{6}{5}$ 4] $N_R = 10, N_B = 4$ 6] 84 8] 133.33 oz

10] $3\sqrt{6}$ 12] $\triangle VWZ \approx \triangle YXZ$ by SSS 14] $x = 4, y = 3, z = 2$ 16] No Solution; $x \neq 3, -1$

18] $(2xy^4 - 3z^3)(4x^2y^8 + 6xy^4z^3 + 9z^6)$ 20] $\frac{1}{8x^{12}y^5}$ 22] $y = \frac{3dfgs^2 + 21x^3}{4g}$

24] $14.76\angle 298.30^\circ, 14.76\angle -61.70^\circ, -14.76\angle 118.30^\circ, -14.76\angle -241.70^\circ$

26] Proof using Alternate Interior Angles, Vertical Angles and AAS

28] $l = 10$ m, $h = 8$ m 30] A

PS 21:

2] $y = -x + 3$ 4] $N_N = 10, N_D = 20, N_s = 10$ 6] 224.71 liters

8] a) Not a function b) Function 10] 15 12] 8

14] Proof with Corresponding Angles, Reflexive and AAA

16] $8(2ab^3 - p)(4a^2b^6 + 2ab^3p + p^2)$ 18] $\frac{a^3y - 6m^3x}{l^2x^2 - 6ty^2}$ 20] $-6 + (3\sqrt{3} + 17)i$

22] $1 + 2i$ 24] $x^2 - 1 - \frac{x-3}{x^2+2}$

26] Proof using Reflexive and SSS 28] $207\pi m^3$ 30] B